



## “Make vs. Buy” x86 solution for high-growth NAS products

Low-cost entry to high-growth markets with short cycle times

### Product overview

The AMD Geode™ LX Network Attached Storage (NAS) Reference Design Kit (RDK) is a ready-made way for companies to develop products quickly for the fast-growing markets for NAS components that meet customer demand for fast, secure access to stored digital data. Driven by the AMD Geode LX 800@0.9W processor\*, the AMD Geode LX NAS RDK enables companies to make maximum use of widely available x86 application software and deliver high performance for a remarkably low entry price point.

Today's consumers are producing digital data at amazing rates, using products such as digital cameras, MP3 players, Personal Media Players (PMPs), digital video cameras, and personal video recorders. Also, more online digital content is available via HD video buying services and music services. More than 42 million homes worldwide, connected to the Internet via broadband, can receive streaming data.

The AMD Geode LX NAS RDK shortens product development cycles by providing companies with the design collaterals necessary to develop solutions that efficiently enable the sharing of home movies, music, and other forms of data while providing redundancy, backup, and security features required for this class of devices. Consumers want fast access to secure data when and where it's needed – the AMD Geode LX NAS RDK gets companies there quickly.

### No sacrifice in performance

The LX 800@0.9W processor with integrated North Bridge functionality provides all the performance required for a low to mid-range NAS solution. The LX NAS RDK also introduces low-power x86 to the NAS market which provides flexibility in form factor design and simplifies application development due to the breadth of x86 software and tools available in the market today. The processor's x86 architecture enables you to quickly adapt thousands of available application programs and use OTS operating systems. Small form factor design is enhanced by design flexibility to create low-cost, high-volume performance with the basic features that emerging consumer NAS products demand.

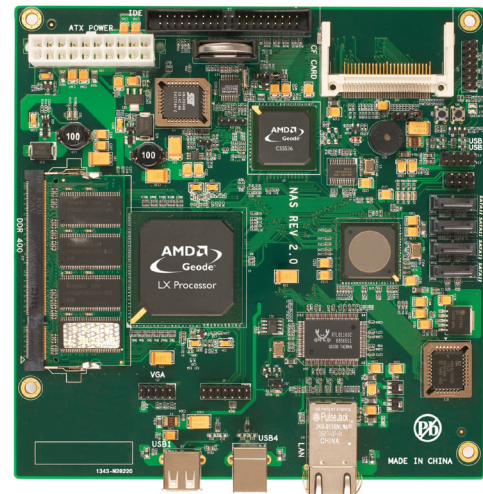
### Full SATA support

Combining the LX 800@0.9W processor and AMD Geode CS5536 companion device with a PCI SATA controller and PCI GigE LAN controller provides a complete NAS solution. In addition, the AMD Geode CS5536 companion device provides general I/O support including USB 2.0, audio, and ATA 100 for easy feature addition.

\*The AMD Geode LX 900@0.9W processor operates at 500MHz. Model numbers reflect performance as described here:

<http://www.amd.com/connectivitysolutions/geodelxbenchmark>

## AMD Geode™ LX Processor Family



### Product features and benefits

- x86 Architecture – enables you to easily add new applications
- Low Power Consumption – provides efficient form factors and small enclosures
- High Integration – 4-layer design for compliance
- AMD Geode LX processor – high data throughput
- Expandability – enables rapid product growth
- Complete System Design Package – provides a ready vehicle for fast time-to-market product development



# AMD Geode™ LX NAS Reference Design Kit

## Key Features

### AMD Geode™ LX Processor and Chipset

- LX 800@0.9W processor and CS5536 companion device

### DDR SDRAM

- DDR 400
- Single SODIMM

### BIOS

- Flash BIOS
- 256Kb to 4MB

### Display

- Serial display interface or USB display interface
- VGA display header for debug

### 10/100/1000 Ethernet On Board

### 4x USB 2.0 (Full Speed)

- 1 standard Type A for external connection
- 1 standard Type B for external connection
- 1 host header on board for internal status display module
- 1 host header on board for expansion purpose

### Indicators

- LED
  - 1 per HD drive for activity
  - 1 for power status
  - 1 for LAN link status

### Mass Storage

- PCI/SATA – 4 Ports, RAID0, RAID1, RAID0+1, RAID5
- Optional SATA expanders for storage capability expansion
- 2.5"/3.5" HDD

### 40-Pin IDE

- Supports 3.5" HDD and/or CD/DVD ROM

### 50-Pin Standard CFC Interface

- Dedicated system software storage

### User Input

- Power On/Off Button

### UART

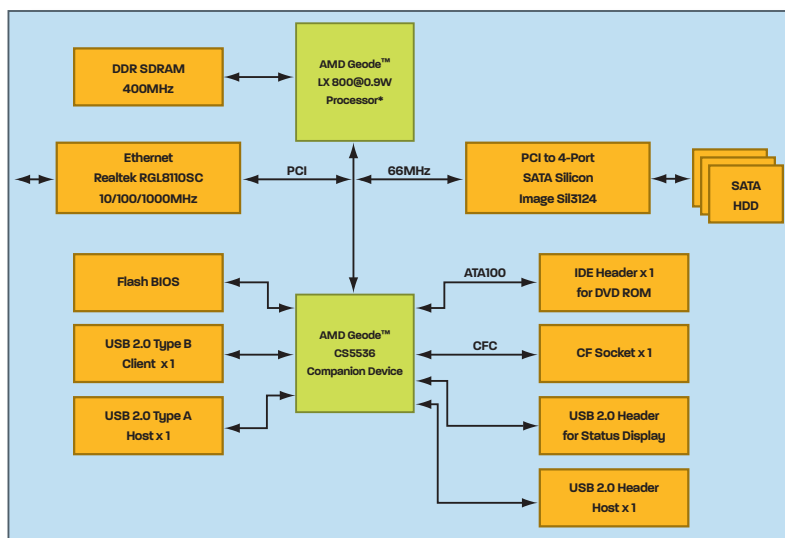
- 3-wire UART header on board

### Debug

- JTAG port

### Power

- Standard ATX



For more information,  
please visit [www.amd.com/geodelxnsrdk](http://www.amd.com/geodelxnsrdk)

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### About AMD

AMD (NYSE:AMD) designs and produces innovative microprocessors and low-power processor solutions for the computer, communications, and consumer electronics industries. AMD is dedicated to delivering standards-based, customer-focused solutions for technology users, ranging from enterprises and governments to individual consumers.

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